REMARKS

Claims 11-20 are pending in the application. Claims 11 and 16 have been amended by the present amendment. The amendments are fully supported by the application as originally filed.

Applicants' claimed invention is directed to a method and an arrangement for motion estimation in a digitized image having pixels. As recited in claims 11 and 16, a first motion estimation is carried out in a first search area for at least one first picture block of the first picture area to determine a first motion vector. A second motion estimation is carried out in a second search area for at least one second picture block of the second picture area to determine a second motion vector. Both motion vectors describe a movement of the first picture block and the second picture block, respectively, in comparison to the respective picture block in a preceding picture and/or a subsequent picture (see, e.g., FIGS. 1A to 1C).

As recited in claims 11 and 16, the size of the first search area and of the second search area is varied as a function of picture quality such that if the picture quality of the first picture block is **higher** than the picture quality of the second picture block, then the size of the first search area is **larger** than the size of the second search area, whereas if the picture quality of the first picture block is **lower** than the picture quality of the second picture block, then the size of the second search area is **smaller** than the size of the second search area. In other words, the search area is larger if the picture block or the respective picture area has higher picture quality requirements. Referring to FIGS. 1A to 1C, the size of the first search area 114 is **larger** than the second search area 116, because the first picture block 103 has a **higher** picture quality than the second picture block 104 (see, e.g., specification at page 10, last paragraph).

Claims 11-20 were rejected under 35 USC 102(b) as being anticipated by U.S. Patent 5,537,155 to O'Connell et al. (hereinafter "O'Connell"). This rejection is respectfully traversed.

O'Connell does not teach or suggest a method or arrangement for motion estimation in which the sizes of first and second search areas are varied as a function of picture quality according to which the first picture block and/or the second picture block are coded, such that if the picture quality of the first picture block is **higher** than the picture quality of the second picture block, then the size of the first search area is **larger** than the size of the second search area, whereas if the picture quality of the first picture block is **lower** than the picture quality of the second picture block, then the size of the second search area is **smaller** than the size of the second search area.

In O'Connell, each video block of a video frame is overlaid on a comparison video block of a previously stored video frame to determine where objects have moved (see column 3, lines 16-21). This overlaying is done in a series of three different comparison densities, so that a previously stored video frame that most closely resembles the present video block is used to encode the present video block (see column 3, lines 21-38).

With reference to FIG. 3 of O'Connell, first region 303 uses a high density level ("a dense search point displacement pattern") to estimate most motion vectors (see column 4, lines 54-58). A second region 304 provides a moderately dense search point displacement pattern for motion vectors that fall outside of the first region 303, which corresponds to a "moderate motion" (see column 4, lines 58-61). Finally, in a third region 305, a less dense displacement pattern is used, since the third region 305 corresponds to a high motion which "tends to blur the image on the camera and that the human observer is less sensitive to resolution in fast moving objects" (see column 5, lines 31-35).

As evident from FIG. 3 of O'Connell, the first region 303 using the very dense displacement pattern is smaller than the second region 304 which uses a moderately dense displacement pattern, and the second region 304 is smaller than the third region 305 which uses the least dense displacement pattern.

In O'Connell, the largest region 305 uses the least dense displacement pattern, while the smallest region 303 uses a very dense displacement pattern. In contrast, claims 11 and 16 recite that the size of the search area is *increased* if picture quality *increases*, whereas the size of the search area is *decreased* if picture quality *decreases*.

For at least the reasons described above, O'Connell does not anticipate or otherwise render obvious the Applicants' claimed invention.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

Date: December 1, 2004

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